

## 2nd Gen A Embedded ARM All-in-One Panel PC

The industrial motherboard is independently researched and developed, and a variety of configuration schemes meet different application needs. The 3MM ultra-thin front frame seamlessly fits all kinds of cabinet equipment. It has an all aluminum alloy structure, fan free and totally enclosed design, and multiple sizes of 10.1"~23.8" are available for selection. The front panel is made of pure flat wire drawing process, which is dustproof and waterproof. The whole machine has low power consumption, good scalability, practicability, EMC compatibility and other performances.

### Features >>

- 3mm Super Thin Front Bezel, Best for Embedded Cabinet.
- High precision aluminum alloy fuselage.
- Independent research and development of ARM architecture industrial motherboard, with a variety of options.
- RK3588 Eight-core 64 bit 2.4GHz CPU, more powerful AI computing power.
- EMC anti-interference standard.
- Industrial-grade protection, adapt to a variety of harsh environments.
- Super network communication capability, faster and more stable data transmission. support Android system customization, can provide API Reference code.



10.1"~23.8" optional

### Product Model >>

Product size	Non-touch	Capacitive Touch	Resistive Touch	Resolution	Screen Scale	Brightness	Contrast ratio	Viewing Angle	Back Cover Style
10.1"	TPC101-A200	TPC101-A210	TPC101-A220	1280*800	16:10	300cd/m <sup>2</sup>	1000:1	85/85/85/85 (L/R/U/D)	 (10.1-12.1 inch small back cover)
10.4"	TPC104-A200	TPC104-A210	TPC104-A220	1024*768	4:3	400cd/m <sup>2</sup>	1000:1	80/80/80/80 (L/R/U/D)	
11.6"	TPC116-A200	TPC116-A210	TPC116-A220	1920*1080	16:9	300cd/m <sup>2</sup>	1000:1	85/85/85/85 (L/R/U/D)	
12"	TPC120-A200	TPC120-A210	TPC120-A220	1024*768	4:3	500cd/m <sup>2</sup>	1000:1	85/85/85/85 (L/R/U/D)	
12.1"	TPC121-A200	TPC121-A210	TPC121-A220	1280*800	16:10	300cd/m <sup>2</sup>	350:1	65/65/50/65 (L/R/U/D)	 (13.3-23.8 inch large back cover)
13.3"	TPC133-A200	TPC133-A210	TPC133-A220	1920*1080	16:9	220cd/m <sup>2</sup>	1000:1	85/85/85/85 (L/R/U/D)	
15.6"	TPC156-A200	TPC156-A210	TPC156-A220	1920*1080	16:9	300cd/m <sup>2</sup>	800:1	85/85/85/85 (L/R/U/D)	
15"	TPC150-A200	TPC150-A210	TPC150-A220	1024*768	4:3	300cd/m <sup>2</sup>	1000:1	89/89/89/89 (L/R/U/D)	
17"	TPC170-A200	TPC170-A210	TPC170-A220	1280*1024	5:4	300cd/m <sup>2</sup>	1000:1	85/85/80/70 (L/R/U/D)	
17.3"	TPC173-A200	TPC173-A210	TPC173-A220	1920*1080	16:9	300cd/m <sup>2</sup>	600:1	80/80/60/80 (L/R/U/D)	
18.5"	TPC185-A200	TPC185-A210	TPC185-A220	1920*1080	16:9	400cd/m <sup>2</sup>	1000:1	89/89/89/89 (L/R/U/D)	
19"	TPC190-A200	TPC190-A210	TPC190-A220	1280*1024	5:4	300cd/m <sup>2</sup>	1000:1	85/85/80/80 (L/R/U/D)	
19.1"	TPC191-A200	TPC191-A210	TPC191-A220	1440*900	16:10	300cd/m <sup>2</sup>	1000:1	80/80/80/80 (L/R/U/D)	
21.5"	TPC215-A200	TPC215-A210	TPC215-A220	1920*1080	16:9	300cd/m <sup>2</sup>	1000:1	89/89/89/89 (L/R/U/D)	
23.8"	TPC238-A200	TPC238-A210	TPC238-A220	1920*1080	16:9	250cd/m <sup>2</sup>	1000:1	89/89/89/89 (L/R/U/D)	

### Product Installation >>



## Product Specifications >>

### Hardware Configuration

CPU	RK3588, Eight core 64 bit core architecture, 4*Cortex-A76+4*Cortex-A55
GPU	ARM Mali-G610 MC4
RAM	8G DDR3 (Optional 16G/32G)
Storage	64G eMMC (Optional 128G)
System	Android 12.0, Ubuntu/Debian/Linux
Ethernet	1000M adaptive Ethernet
4G/5G	Mini Pcie 4G module interface, M.2 5G module interface
Network support	4G, Ethernet, support for WiFi/Bluetooth, wireless peripheral expansion

### Touch parameters

Capacitive Touch	Touch screen type: 10 point touch projection capacitive touch screen Light transmittance: $\geq 88\%$ Input mode: handwriting or capacitive pen Controller communication: USB
Resistive Touch	Touch screen type: single point resistive touch screen Light transmittance: $\geq 78\%$ Input mode: Fingertip or stylus Controller communication: USB
Non touch	Light transmittance: $\geq 92\%$

### Reliability parameters

working temperature	Operating temperature: $-10^{\circ}\text{C}$ – $60^{\circ}\text{C}$ , storage temperature: $-20^{\circ}\text{C}$ – $70^{\circ}\text{C}$
Operating humidity	Humidity: 95% non condensing
Vibration protection	IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis
Impact protection	IEC 60068-2-27, half sine wave, duration 11ms
Product certification	CCC/CE/FCC/EMC/CB/ROHS

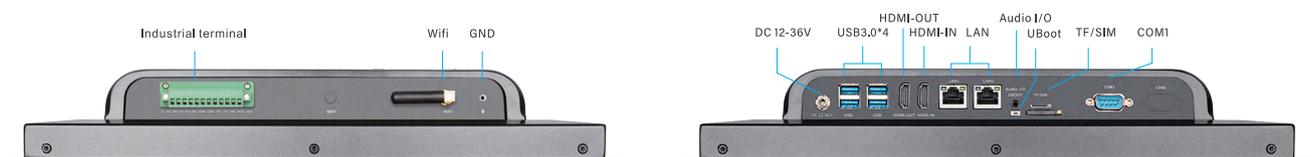
### Other parameters

Power input	12-36V power input
Static power	18W
Fuselage Properties	Body material: aluminum alloy, body color: classic black, technical silver
warranty policy	Three years (one year free warranty)
Installation method	Support embedded, wall mounted, desktop, louver, cantilever, boom and other installation methods

### I/O Interface

Power interface 1	1*DC 2.1, Support 12V-36V wide voltage power supply
Power interface 2	1*Industrial terminal (12-36V GND TX1 RX1 GND CANH CANL I02 I01 I00 485B 485A)
HDMI	1*HDMI OUT, 1*HDMI IN, maximum support 4k
USB	4*USB 3.0
LAN	2*1000M adaptive Ethernet
TF	1*TF data storage, maximum support 32G
SIM	1*SIM, SIM card interface standard interface supports various formats (depending on 3G / 4G module)
AUDIO	1*Audio I/O, Support audio input and output, Headphone: 3.5mm standard interface
UBOOT	Support (1*UBOOT)
COM	1*COM(The default is RS232, optional RS485/RS422)
Wifi antenna	1*Wifi antenna
Grounding column	Support (1*GND)

## Interface Distribution >>



Only the 15 inch RK3588 motherboard interface is displayed. Please refer to the actual object for details.